

I CLAIM:

1. A multi-element intravascular occlusion device for use in a vessel, said device comprising:

(a) at least one anchoring element; and

(b) at least one lead element attached to said at least one anchoring element by a

5 means for attaching, wherein said multi-element intravascular occlusion device produces total occlusion of the vessel by thrombosis.

2. The multi-element intravascular occlusion device of Claim 1 wherein said anchoring element comprises a coil.

3. The multi-element intravascular occlusion device of Claim 1 wherein said lead element comprises a coil.

4. The multi-element intravascular occlusion device of Claim 1 wherein said lead element comprises a particle.

5. The multi-element intravascular occlusion device of Claim 2 wherein said coil is curved.

6. The multi-element intravascular occlusion device of Claim 2 wherein said coil is straight.

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7. The multi-element intravascular occlusion device of Claim 1 wherein said means for attaching comprises at least one fiber.
8. The multi-element intravascular occlusion device of Claim 7 wherein said at least one fiber comprises nonmetallic fibers.
9. The multi-element intravascular occlusion device of Claim 7 wherein said at least one fiber comprises metallic fibers.
10. The multi-element intravascular occlusion device of Claim 7 wherein said at least one fiber comprises a fiber capable of elongation.
11. The multi-element intravascular occlusion device of Claim 1 wherein the lead element comprises intermeshed fiber.
12. The multi-element intravascular occlusion device of Claim 7 wherein at least one fiber is between 3 and 30 mm. in length.

13. A multi-element intravascular occlusion device for use in a vessel, said device comprising:

- (a) an anchoring element;
- (b) a lead element; and

5 (c) a plurality of fibers for attaching said anchoring element to said lead element wherein said multi-element intravascular occlusion device produces total occlusion of the vessel by thrombosis.

14. The multi-element intravascular occlusion device of Claim 13, wherein said anchoring element comprises a coil.

15. The multi-element intravascular occlusion device of claim 13, wherein said lead element comprises a coil.

16. The multi-element intravascular occlusion device of Claim 13, wherein said lead element comprises a particle.

17. The multi-element intravascular occlusion device of Claim 13, wherein said plurality of fibers comprise metallic fibers.

18. The multi-element intravascular occlusion device of Claim 13 wherein said plurality of fibers comprise nonmetallic fibers.

19. The multi-element intravascular occlusion device of Claim 13 wherein said lead element comprises an intermeshed portion of the plurality of fibers.

20. A multi-element intravascular occlusion device comprising:

- (a) at least one anchoring element;
- (b) at least one lead element attached to said at least one anchoring element by a means for attaching;
- (c) a plurality of expansion members attached to the lead element, said expansion members supporting a fabric web therebetween.

21. The multi-element intravascular device of Claim 20 wherein said web is tightly woven to prevent the flow of blood therethrough.

22. The multi-element intravascular device of Claim 20 wherein said anchoring element comprises a coil.

23. The multi-element intravascular device of Claim 20 wherein said lead element comprises a coil.

24. The multi-element intravascular device of Claim 20 wherein said lead element comprises a particle.

25. The multi-element intravascular occlusion device of Claim 20 wherein said means for attaching comprises at least one fiber.

26. The multi-element intravascular device of Claim 20 wherein said expansion elements are biased to an umbrella position outward from said attachment means.

27. The multi-element intravascular device of Claim 26 wherein said expansion members comprises nonmetallic fibers.

28. The multi-element intravascular device of Claim 26 wherein said expansion members comprises metallic fibers.

29. The intravascular device of Claim 20 wherein said expansion members are foldable between a collapsed position and an expanded position.

30. The intravascular device of Claim 29 wherein said expansion members form a substantially convex surface in said expanded position.

31. The intravascular device of Claim 29 wherein said expansion members form a substantially concave surface in said expanded position.

32. The intravascular device of Claim 29 wherein said expansion members form a substantially flat surface in said expanded position.

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33. An intravascular device for use in occluding a vessel comprising:

(a) a lead element; and

(b) a trailing element attached to the lead element by at least one fiber, wherein the lead element is a plurality of expansion members supporting a fabric mesh.

34. The intravascular device of Claim 33 wherein said fabric mesh is dimensioned to block the flow of blood through the vessel.

35. The intravascular device of Claim 33 wherein said expansion members are foldable between a collapsed position and an expanded position.

36. The intravascular device of Claim 35 wherein said expansion members form a substantially convex surface in said expanded position.

37. The intravascular device of Claim 35 wherein said expansion members form a substantially concave surface in said expanded position.

38. The intravascular device of Claim 35 wherein said expansion members form a substantially flat surface in said expanded position.

~~39.~~ An intravascular device comprising:

(a) at least one anchoring element; and

(b) at least one lead element attached to said at least one anchoring element by a means for attaching, wherein said at least one lead element is a pharmacologic or other biologically active element.

40. The intravascular device of Claim 39 wherein the pharmacologic agent is a soluble drug.

41. The intravascular device of Claim 39 wherein said pharmacologic object is a clot dissolving drug.

42. The intravascular device of Claim 39 wherein said biologically active agent releases viral particles or other agents used for genetic alteration.

~~43.~~ An intravascular device comprising:

(a) a first element for permanent placement in the vessel; and

(b) a second element detachably attached to said first element.